(6)

JP 0620094343 AA

B41J 3/00

B23K 26/00

B41F 17/00

B41M 5/26

Anmeldenummer: 1985 233249

Anmeldedatum: 21.10.1985

Publikationsdatum: 30.4.1987

Prioritäten:

Land	Datum	Nummer	Art

Erfinder: YAMAMOTO NORIO

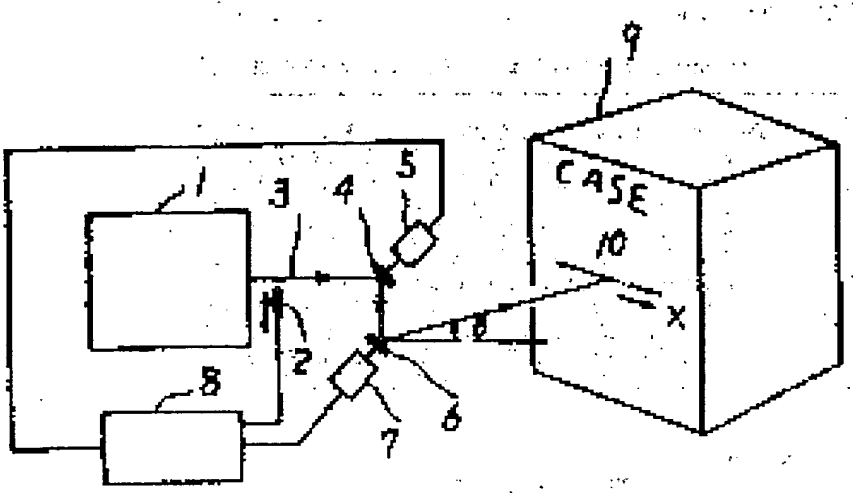
Anmelder: HITACHI LTD

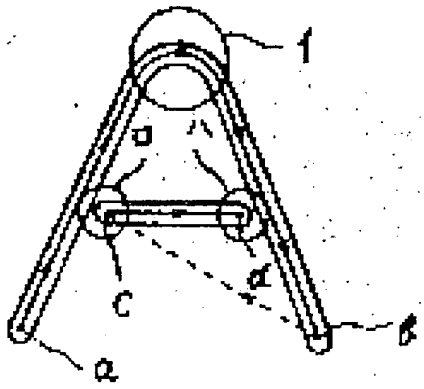
Titel: LASER MARKING SYSTEM

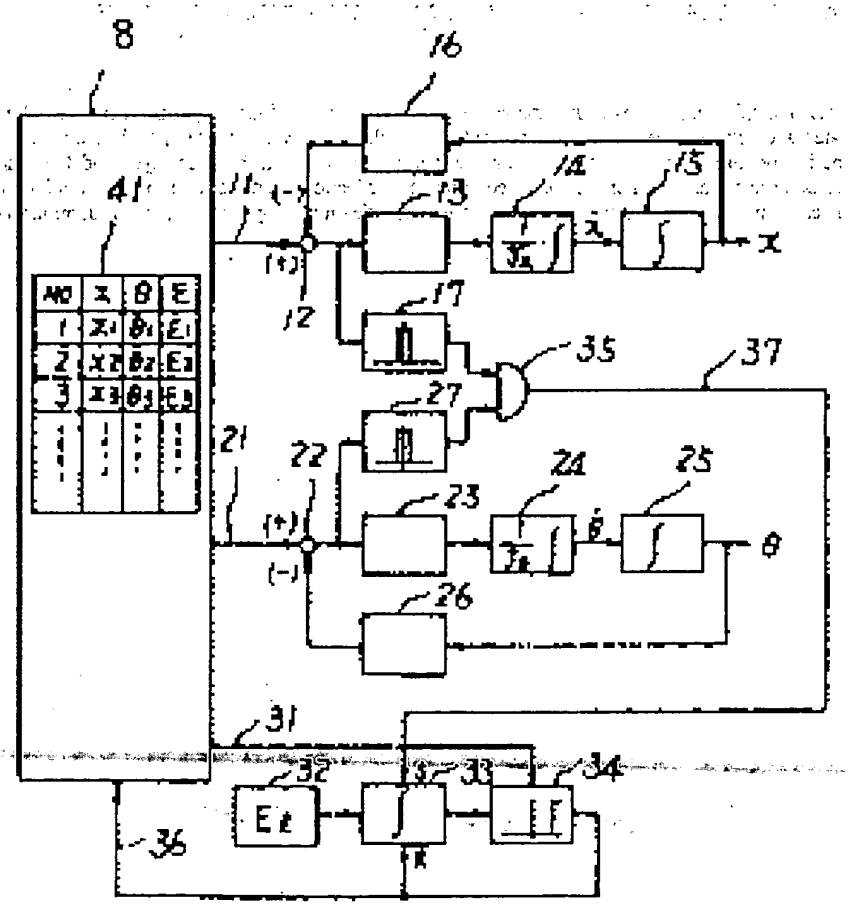
Zusammenfassung

PURPOSE: To prevent an ignition phenomenon at the time of marking to a combustible article, by controlling irradiation energy to an objective marking surface to a definite value or less.

CONSTITUTION: Position orders of an x-direction order 11 and a θ-direction order 21 and the laser irradiation energy order 31 corresponding to each position are successively outputted from the order device of a control apparatus 8 and a reflective mirror is moved to the position corresponding to an order value to integrate the intensity of laser beam and, at the point of time when the quantity of energy at that position reached the order 31, laser beam is moved to the next position and the above mentioned procedure is repeated to control the irradiation quantity of laser beam at each position. For example, in the marking of an English character A, the acute angle (an a-range in a drawing) of the upper part of A is removed and the moving speed of laser beam 3 in the a-range is moved so as to be made faster than that at a straight line part to make the irradiation time of laser beam at each position of the character constant and the ignition of a wood box 9 is prevented. In the b-range and the c-range shown by the drawing, the overlapping of irradiation of laser beam 3 is avoided and the light emission of the wood box 9 is prevented.


9
CASE
10
X
1
3
4
5
2
8
7
6


1
C
α
β
a


8
16
41
11
(-)
(+)
12
13
14
15
x
17
35
37
27
21
22
24
25
23
θ
(+)
(-)
26
31
32
33
34
Ek
36